



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,697	08/06/2003	Wu Niang Feng	J2P3001-P1678US	7557
47161	7590	10/19/2005	EXAMINER	
WU-NIANG FENG 235 CHUNG-HO BOX 8-24 TAIPEI HSIEN, 235 TAIWAN			DUONG, THANH P	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/634,697

Applicant(s)

FENG, WU NIANG

Examiner

Tom P. Duong

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Childs (3,993,449) in view of McGill et al. (5,284,438). Regarding claims 1 and 3-4, Childs discloses a waste gas processing device (Fig. 1) comprising: a flame path through a waste gas combustion chamber, a head section (20) on a top of the waste gas combustion chamber, and a waste gases outlet (b); the flame path further comprising: at least one fuel spray ring (40); each fuel spray ring having a respective fuel room (36) formed in the head section and being connected to a fuel source line for supplying fuel gas; a secondary flame ring (48) of each fuel spray ring having a plurality of secondary flame apertures; a tapered flame jet (86) which is communicable with the waste gas combustion chamber being formed in a lower end of the flame path. Childs fails to disclose an igniter being installed in the flame path. McGill teaches it is conventional to provide a pilot 28 in the ignition flame zone 42 to facilitate the combustion fuel. Thus, it would have been obvious in view of McGill to one having ordinary skill in the art to modify the waste gas system of Childs with an igniter as taught by McGill in order to facilitate the combustion process. Regarding claim 2, Child

Art Unit: 1764

discloses air hole 122 formed on the waste gas outlet. Regarding claim 5, it is conventional to provide annular water section with water spray device in the combustion chamber and it would have been obvious to do so here to minimize particulate solids from adhering to the inner wall of the combustion chamber. Regarding claim 6, Childs discloses an air spray apertures (120). Regarding claim 7, Childs discloses a fire jetting sleeve (section 110). Regarding claims 8 and 9, Childs discloses the fire jetting sleeve is connected with a secondary fuel source (134). Regarding claim 10, it is conventional to provide a nitrogen source in the waste gas path and it would have been obvious to do so here to control the temperature of the waste gas feed in order to optimize the combustion reaction.

2. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applied references (Childs '449 in view of McGill et al. '438). as applied to claim 1 above, and further in view of Shular (3,881, 874). The applied references fails to disclose a header is provided with a temperature probe to detect the reaction temperature in the flame path. Shular teaches the temperature sensing probes 40-43 are located in the combustion chambers H and I to measure the temperature of the reaction. Thus, it would have been obvious in view of Shular to one having ordinary skill in the art to modify the waste gas apparatus of the applied references with a temperature probe as taught by Shular in order to provide means for measuring the temperature in the flame path.

**Conclusion**

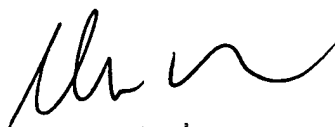
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD  
October 14, 2005

(TD)

  
Glenn Caldarola  
Supervisory Patent Examiner  
Technology Center 1700